



[REDACTED]

5 the plurality of collection pools having a different collection rate;

10 of the plurality of connection pools based at least in part on an overflow rate for a collected characteristic of the connection.

15           4. The method of claim 1, wherein said collected data includes at least one packet  
statistic.

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determining a data acquisition rate for each connection of a plurality of connections;

assigning said each connection to one of the plurality of predefined collection groups based at least in part on the data acquisition rate for said each connection; and

collecting data for said each connection according its assigned predefined collection group at approximately said corresponding predetermined collection rate.

8. The method of claim 7, wherein a packet statistic is maintained for said each connection.

10. An apparatus comprising:

25           a collector to acquire data from the plurality of elements according to said  
different collection rates of the plurality of collection groups.

11. The apparatus of claim 10, wherein the different packet statistic count maintained by each of the plurality of elements corresponds to one or more connections.

12. The apparatus of claim 10, wherein each of the plurality of elements includes a counting mechanism.

5        13. The apparatus of claim 10, further comprising a packet processor coupled to each of the plurality of elements and to initiation modification of said data in the plurality of elements.

14. The apparatus of claim 13, wherein each of the plurality of elements includes a counting mechanism.

10        15. A packet switching component including the apparatus of claim 10.

16. The apparatus of claim 10, wherein the data structure includes a plurality of identifiers, each of the plurality of identifiers corresponds to a different one of the plurality of elements.

15        17. The apparatus of claim 16, wherein the data structure includes at least one linked list of a group of the plurality of identifiers assigned to one of the plurality of collection groups.

18. The apparatus of claim 10, wherein the collector includes a second data structure to maintain indications of said data acquired from the plurality of elements.

19. An apparatus comprising:

a plurality of means for maintaining a packet statistic, the plurality of means for maintaining the packet statistic having at least two different minimum collection rates;

means for acquiring data at a plurality of different collection rates from the

5 plurality of means for maintaining the packet statistic; and

means for relating each of the plurality of means for maintaining the packet statistic to one of the plurality of collection rates.

20. An apparatus comprising:

10 means for establishing a plurality of collection pools for a range of collection rates, each of the plurality of collection pools having a different collection rate;

means for collecting data from a plurality of means for storing data;

means for assigning a particular means for storing data to a particular one of the plurality of collection pools based at least in part on an overflow rate for the means for storing data; and

15 means for collecting data from the plurality of means for storing data at approximately said collection rates of the plurality of collection pools.

21. The apparatus of claim 20, wherein the collection rate of each of the plurality of collection pools equals or exceeds the overflow rate for each particular means for storing data assigned to said each of the plurality of collection pools.

20 22. The apparatus of claim 21, wherein each of the plurality of means for storing data maintains at least one packet statistic.

23. An apparatus comprising:

means for determining a data acquisition rate for each element of a plurality of elements;

5 means for configuring a plurality of predefined collection groups, each predefined collection group having a different predetermined collection rate;

means for assigning said each element to one of the plurality of predefined collection groups based at least in part on the data acquisition rate for said each element; and

10 means for collecting data from said each element according its assigned predefined collection group at approximately said corresponding predetermined collection rate.

24. The apparatus of claim 23, wherein said predetermined collection rate for a particular predefined collection group exceeds a data overflow rate for each of the elements assigned to said particular predefined collection group.

15 25. The apparatus of claim 24, wherein each element maintains at least one packet statistic.

26. An apparatus comprising:

means for establishing a plurality of collection pools for a range of collection rates, each of the plurality of collection pools having a different collection rate;

20 means for assigning a connection to a particular one of the plurality of collection pools; and

means for collecting data for the connection at approximately the collection rate of said particular one of the plurality of collection pools.

25 27. The apparatus of claim 26, wherein the connection is assigned to the particular one of the plurality of connection pools based at least in part on an overflow rate for a collected characteristic of the connection.

29. An apparatus comprising:

means for configuring a plurality of predefined collection groups, each predefined collection group having a different predetermined collection rate;

means for collecting data for said each connection according its assigned predefined collection group at approximately said corresponding predetermined collection rate.

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